We Claim:

1. In a mobile telecommunications system, a method of directing data units from buffer means to channels for transmission of the data units, the method comprising:

a. providing a set of information channels for connection to the buffer means, and providing a set of transport channels for transmission of the data units,

b. selecting a subset of said set of information channels and a subset of said set of transport channels for interconnection, characterised by:

c. selecting for each transport channel one or a plurality of information channels to be multiplexed on the transport channel,

d. prioritising the selected information and/ or transport channels according to a predetermined scheme, in dependence on the characteristics of the information channels and/or the data to be transmitted therethrough; and

e. determining how many data units may be transmitted from the respective buffer means to the transport channels in a timing interval.

2. In the Universal Mobile Telecommunications System, a method of directing data units from buffer means in the Radio Link Control Layer (RLC) to transport channels in the Medium Access Control (MAC) layer for transmission of the data units as claimed in claim 1, the method including providing a set of information channels in the RLC layer for connection to the buffer means, and providing a set of transport channels in the MAC layer for transmission of the data units,

3. A method according to claim 1 or 2, wherein, in step d, the transport channels are prioritised according to the characteristics of the information channels and/or the data to be transmitted therethrough.

4. A method according to claim 3, wherein, in step d, the transport channels are prioritised according to the characteristics of the information channels.

5. A method according to claim 1, wherein for steps d and e, a reference mapping table is formed to relate the transport channels to the information channels with the elements of the table comprising the respective buffer status.

6. A method according to claim 5, wherein the first row or column of the table contains the highest priority transport channel, and the second row or column the next highest priority channel.

7. A method according to claim 6, wherein for each row or column, the multiplexed information channels are arranged in sequence in order of descending priority.

8. A method according to any of claims 5 to 7, wherein a transport block combination table is formed to relate the number of data units which may be transmitted at each timing interval on each transport channel.

9. A method according to claims 1, 2, 4, 5, 6, or 7, wherein the method is carried out for each consecutive transmission timing interval (TTI).

10. A method according to claim 9, wherein the TTI is the minimum TTI assigned for a transport channel, and those transport channels having assigned a longer TTI are not selected in the next TTI.

11. Apparatus in a mobile telecommunications system for directing data units from buffer means (161-163) to channels (DCH) for transmission of the data units, comprising:
a set of information channels (DTCH, DCCH) for connection to the buffer means, and a set of transport channels (DCH) for transmission of the data units,
means for selecting a subset of said set of information channels and a subset of said set of transport channels for interconnection, characterised by:
means (14) for selecting for each transport channel one or a plurality of information channels to be multiplexed on the transport channel,
means for prioritising the selected information and/or transport channels according to a predetermined scheme; in dependence on their characteristics and/or the data to be transmitted therethrough; and
means for determining for such information channels how many data units may be transmitted from the respective buffer means.

12. Apparatus according to claim 11, wherein the prioritising means is arranged to prioritise the transport channels.

13. Apparatus according to claim 12, wherein the prioritising means is arranged to prioritise the transport channels in dependence on the characteristics of the information channels.

14. Apparatus according to any of claims 11 to 13, wherein the prioritising means is arranged to construct a mapping table (32) to relate the transport channels to the information channels with elements of the table being formed by respective buffer status.

15. Apparatus according to claim 14, wherein the prioritising means is arranged to construct a transport block combination table (34) to relate the number of data units which may be transmitted at each timing interval on each transport channel.

16. Apparatus according to claim 15, wherein the prioritising means is operative to determine priorities for each consecutive transmission timing interval.

17. Apparatus according to claim 16, wherein the prioritising means is operative to determine priorities for each minimum transmission timing interval, but excluding those channels which are continuing with a longer transmission interval.